

# DIMETHYLFORMAMIDE

CAS# 68-12-2

N, N-DIMETHYLFORMAMIDE UN2265

**WARNING!**  
COMBUSTIBLE LIQUID.  
HARMFUL IF ABSORBED THROUGH THE SKIN.  
MAY BE HARMFUL IF INHALED  
LIQUID, VAPOR OR MIST MAY CAUSE EYE, SKIN AND RESPIRATORY  
TRACT IRRITATION

## FIRST AID:

IN CASE OF CONTACT, immediately flush eyes or skin with plenty of water while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Decontaminate or discard contaminated shoes. IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. IF SWALLOWED, DO NOT induce vomiting. Call a physician.

3276000

## ATTENTION:

MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CONTAINS DIMETHYLFORMAMIDE WHICH MAY CAUSE LIVER DAMAGE. DIMETHYLFORMAMIDE IS READILY ABSORBED THROUGH THE SKIN. POSSIBLE CANCER HAZARD BASED ON ANIMAL DATA.

## PRECAUTIONARY MEASURES:

Keep away from heat and flame. Container and equipment used for handling, storage or transfer must be grounded and bonded. Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, impervious gloves and other necessary protective equipment. Avoid breathing vapor or mist. Do not swallow.

Use or store with adequate ventilation. Keep workplace airborne concentrations below legal and recommended limits. Circumstances could require use of respiratory protection. Refer to applicable OSHA regulations.

Wash thoroughly after handling. Do not transfer to unmarked container. Keep container closed when not in use. Loosen closure carefully. Do not use pressure to empty. Empty containers may contain hazardous product residues.

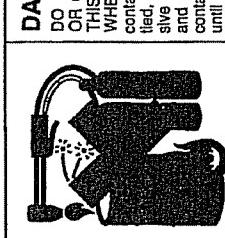
## SPILL AND FIRE PROCEDURES:

Contain spill and keep out of sewer. Absorb with inert material (e.g., dry sand or earth), then place in a chemical waste container for later disposal. Dispose of wastes in accordance with applicable federal, state and local regulations.

In case of fire, use water spray (fog), foam, dry chemical or carbon dioxide.

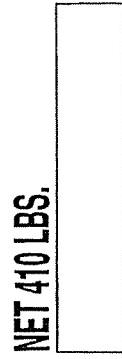
FlashPoint = 136°F

HAZARD RATING: HMIS NFPA			
HEALTH	3*	1	
FLAMMABILITY	2	2	
REACTIVITY	0	0	
PERSONAL PROTECTION			



ICS-4023 9/93

NET 410 LBS.

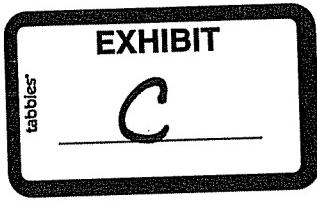


## FOR INDUSTRIAL USE ONLY

BEFORE USE, REVIEW MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION, INCLUDING CHRONIC HEALTH EFFECTS.



ASHLAND CHEMICAL, INC.  
SUBSIDIARY OF ASHLAND OIL, INC.  
P.O. BOX 2219, COLUMBUS, OHIO 43216  
24-HOUR EMERGENCY TELEPHONE:  
1-800-274-5263 OR 1-800-ASHLAND



tables

C

D.DASH-WILSON 000064

**DO NOT USE WELDING OR CUTTING TORCH ON THIS DRUM (EVEN WHEN EMPTY)**



# DIMETHYLFORMAMIDE

C.A.S. NO. 68-12-2

DOT Name:  
COMBUSTIBLE LIQUID, N.O.S. (Dimethylformamide)

## WARNING!

- COMBUSTIBLE LIQUID • MAY CAUSE EYE, SKIN OR RESPIRATORY IRRITATION • MAY BE HARMFUL IF INHALED, SWALLOWED OR ABSORBED THROUGH THE SKIN
- RAPIDLY ABSORBED THROUGH SKIN
- MAY CAUSE LIVER DAMAGE • POSSIBLE CANCER HAZARD

### HANDLING & STORAGE:

Keep away from heat and flame. Drum should be grounded and bonded when transferring liquid contents.

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, impervious gloves and other necessary protective equipment. Wash thoroughly after handling.

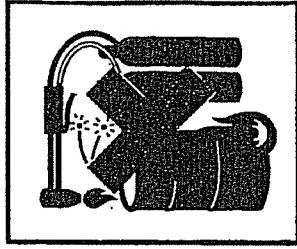
Use or store with adequate ventilation. Refer to applicable OSHA regulations. Keep workplace airborne concentrations below legal and recommended limits. Circumstances could require use of respiratory protection.

Do not transfer to unmarked container. Keep container closed. Never use pressure to empty. Empty containers may contain hazardous product residues. Keep closure end up. Loosen closure carefully.

**BEFORE USE, REVIEW MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION, INCLUDING CHRONIC HEALTH EFFECTS.**

**NOTICE:** Overexposure to solvent vapors can irritate the respiratory tract and cause headache, dizziness, drowsiness or other nervous system effects.

NA1993



**FIRE:**  
In case of fire, use water spray (fog), foam, dry chemical, or CO<sub>2</sub>.

### SPILL OR LEAK:

Contain spill and keep out of sewer. Absorb with inert material (e.g., dry sand or earth), then place in a chemical waste container for later disposal. Dispose of wastes in accordance with applicable federal, state and local regulations.

**DANGER:**  
After this container has been emptied, it may contain explosive and harmful vapors and residue. Do not cut, puncture or weld on or near this container. Do not reuse container for any purpose until commercially reconditioned.

Hazard Ratings:	HMIS	NFPA
HEALTH	3*	1
FLAMMABILITY	2	2
REACTIVITY	0	0
PERSONAL PROTECTION	□	

\*May be chronic health effects—See MSDS.

**NET 410 LBS.**

IC&S-4023

**FOR INDUSTRIAL USE ONLY**

10/89

ASHLAND CHEMICAL, INC. • SUBSIDIARY OF ASHLAND OIL, INC., PO. BOX 2219, COLUMBUS, OHIO 43216  
**24-HOUR EMERGENCY TELEPHONE: 1-800-274-5263 OR 1-800-ASHLAND**

CASE# 67-53-1

ISOPROPYL ALCOHOL, FLAMMABLE LIQUID UN1219

# ISOPROPANOL 99%

3507000 LOT # XXXXXXXX

## WARNING!

FLAMMABLE LIQUID  
MAY BE HARMFUL IF INHALED  
LIQUID, VAPOR OR DUST MAY CAUSE EYE AND RESPIRATORY  
TRACT IRRITATION  
PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE  
DERMATITIS AND BURNS.

ATTENTION:  
MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS,  
HEADACHE OR NAUSEA.

### PRECAUTIONARY MEASURES:

VAPORS FORM EXPLOSIVE MIXTURES WITH AIR. KEEP AWAY FROM  
HEAT, SPARKS, FLAME, PILOT LIGHTS AND OTHER IGNITION

SOURCES.

Store in flammable label area. Container and equipment used  
for handling, storage or transfer must be grounded and  
bonded. This product is not suitable as a general purpose  
cleaner because of its flammability.

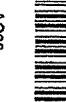
Avoid contact with skin. Absorb with inert material (e.g., dry sand or earth), then place in a chemical  
waste container for later disposal. Dispose of wastes in  
accordance with applicable federal, state and local  
regulations.

In case of fire, use water (flood with water), dry chemical,  
carbon dioxide, or "alcohol" foam.  
Wash thoroughly after handling. Do not transfer to unmarked  
container. Keep container closed when not in use. Loosen  
closure carefully. Do not use pressure to empty. Empty con-  
tainers may contain hazardous product residues.

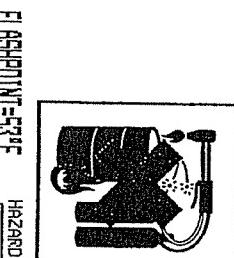
*Ashland Chemical*

ASHLAND CHEMICAL, INC.  
SUBSIDIARY OF ASHLAND OIL, INC.  
P.O. BOX 2219, COLUMBUS, OHIO 43216  
24-HOUR EMERGENCY TELEPHONE:  
1-800-224-5263 OR 1-800-ASHLAND

FOR INDUSTRIAL USE ONLY  
BEFORE USE, REVIEW MATERIAL SAFETY DATA SHEET FOR  
FURTHER INFORMATION, INCLUDING CHRONIC HEALTH EFFECTS.



XX  
XXX



DANGER:			
DO NOT USE WELDING OR CUTTING TORCH ON THIS CONTAINER (EVEN WHEN EMPTY). After this container has been emptied, tiny con-	1	1	
pores and residue. Do not reuse container for any pur- pose and communally reen- dowed.	3	3	
use or store with adequate ventilation. Keep workplace air- borne concentrations below legal and recommended limits.	0	0	
Circumstances could require use of respiratory protection. Refer to applicable OSHA regulations.			

Hazard Rating: HMIS NFPA			
HEALTH	1	1	
FLAMMABILITY	3	3	
REACTIVITY	0	0	
PERSONAL PROTECTION			

44 XX  
7/01/91

NET XXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXX

D.ASH-WILSON 000129

# DANGER!

EXTREMELY FLAMMABLE LIQUID.  
MAY CAUSE EYE, SKIN OR RESPIRATORY IRRITATION.  
MAY BE HARMFUL IF INHALED OR SWALLOWED.  
MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.

## ATTENTION:

OVEREXPOSURE TO SOLVENT VAPORS CAN IRRITATE THE EYES, IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER EYELIDS. DO NOT USE CHEMICAL ANTIDOTE. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION. SKIN: THOROUGHLY FLUSH WITH WATER. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. DISCARD CONTAMINATED SHOES. INHALATION: IF ALLEGED REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION AND GET MEDICAL ATTENTION IMMEDIATELY. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSES OF WATER AND GET MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

## FIRST AID:

EYES: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER EYELIDS. DO NOT USE CHEMICAL ANTIDOTE. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION. SKIN: THOROUGHLY FLUSH WITH WATER. IF REDNESS OR IRRITATION PERSISTS, GET MEDICAL ATTENTION. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. DISCARD CONTAMINATED SHOES. INHALATION: IF ALLEGED REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION AND GET MEDICAL ATTENTION IMMEDIATELY. IF BREATHING IS DIFFICULT, GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSES OF WATER AND GET MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

## PRECAUTIONARY MEASURES:

VAPORS FORM EXPLOSIVE MIXTURES WITH AIR. KEEP AWAY FROM HEAT, SPARKS, FLAME, PILOT LIGHTS AND OTHER SOURCES OF IGNITION. STORE IN FLAMMABLE AREA. DRUM SHOULD BE GROUNDED AND BONDED WHEN TRANSFERRING LIQUID CONTENTS.

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, impervious gloves and other necessary protective equipment. Wash thoroughly after handling.

Use or store with adequate ventilation. Refer to applicable OSHA regulations. Keep workplace airborne concentrations below legal and recommended limits. Circumstances could require use of respiratory protection.

DO NOT TRANSFER TO UNMARKED CONTAINER. KEEP CONTAINER CLOSED. NEVER USE PRESSURE TO EMPTY. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES. KEEP Closure END UP. LOSENSE Closure CAREFULLY.

In case of fire, use water spray (fog), foam, dry chemical, or carbon dioxide.

This product is not suitable for use as a general purpose cleaner because of its flammability.

## SPILL AND FIRE PROCEDURES:

CONTAIN SPILL AND KEEP OUT OF SEWER. ABSORB WITH INERT MATERIAL (E.G., DRY SOIL OR EARTH), THEN PLACE IN A CHEMICAL WASTE CONTAINER FOR LATER DISPOSAL. DISPOSE OF WASTES IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

ASHLAND CHEMICAL COMPANY  
DIVISION OF ASHLAND INC.  
P.O. BOX 2219, COLUMBUS, OHIO 43216  
24-HOUR EMERGENCY TELEPHONE:  
1-800-274-5263 OR 1-800-ASHLAND



NET 55 GALS.

ICS-4571.02/95

BEFORE USE, REVIEW MATERIAL SAFETY DATA SHEET FOR  
FURTHER INFORMATION, INCLUDING CHRONIC HEALTH EFFECTS.



DANGER:  
DO NOT USE WELDING  
OR CUTTING TORCH ON  
THIS CONTAINER (EVEN  
WHEN EMPTY). After this  
container has been emp-  
tied, it may contain explosive  
and harmful vapors  
and residues. Do not reuse  
container for any purpose  
until commercially recom-  
mended.

**DO NOT USE WELDING OR CUTTING TORCH ON THIS DRUM (EVEN WHEN EMPTY)**

FIRE EXTINGUISHER

**PROPRIETARY PRODUCT****DANGER!**

**• EXTREMELY FLAMMABLE LIQUID  
• MAY CAUSE EYE, SKIN OR RESPIRATORY IRRITATION  
• MAY BE HARMFUL IF INHALED, OR SWALLOWED  
• MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION**

**HANDLING & STORAGE:**

Vapors form explosive mixtures with air. Keep away from heat, sparks, flame, pilot lights and other sources of ignition. Store in flammable label area. Drum should be grounded and bonded when transferring liquid contents.

Avoid breathing vapor, mist. Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, impervious gloves and other necessary protective equipment. Wash thoroughly after handling.

Use for store with adequate ventilation. Refer to applicable OSHA regulations. Keep workplace airborne concentrations below legal and recommended limits. Circumstances could require use of respiratory protection.

Do not transfer to unmarked container. Keep container closed. Never use pressure to empty. Empty containers may contain hazardous product residues. Keep closure end up. Loosen closure carefully.

This product is not suitable for use as a general purpose cleaner because of its flammability.

BEFORE USE, REVIEW MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION, INCLUDING CHRONIC HEALTH EFFECTS.

**NET 55 GALS****FOR INDUSTRIAL USE ONLY**

ICS-4571

ASHLAND CHEMICAL COMPANY • DIVISION OF ASHLAND OIL, INC., P.O. BOX 2219, COLUMBUS, OHIO 43216

**24-HOUR EMERGENCY TELEPHONE: 606-324-1133**

8/68